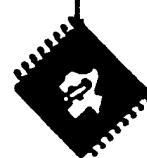


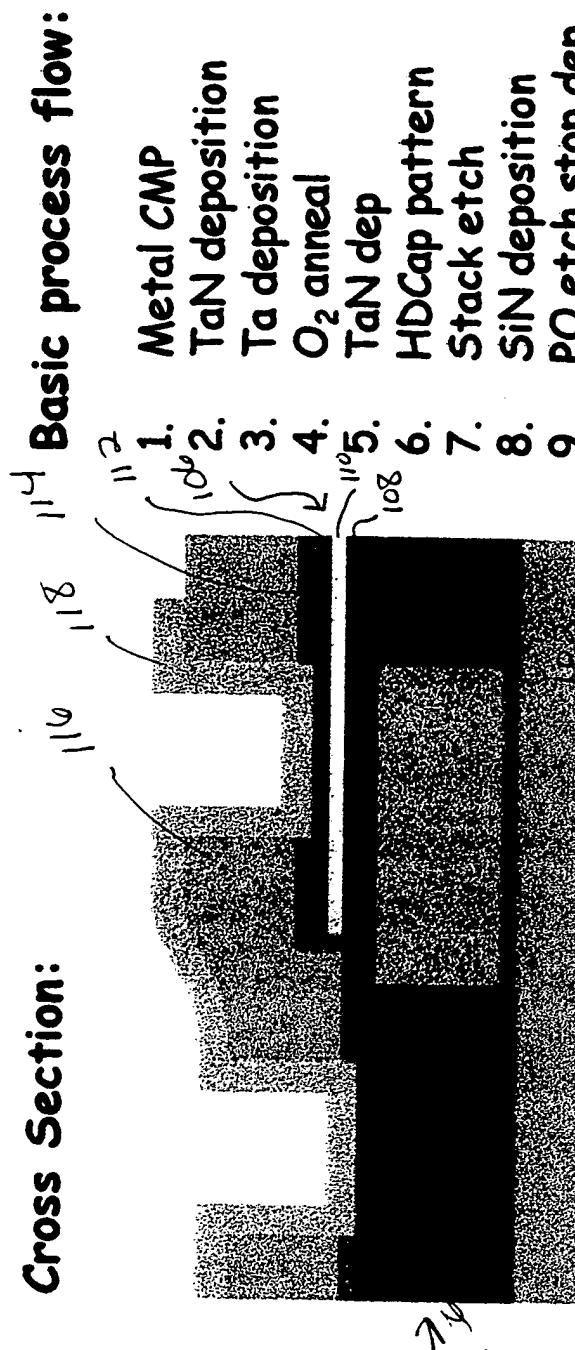
# 1 Mask HD Cap Proposal



## Materials:

- Dielectric
- SiC or SiN
- Cu
- TaN
- HM
- Ta<sub>2</sub>O<sub>5</sub>
- Al

## Cross Section:



1. Dielectric
2. SiC or SiN
3. Cu
4. TaN
5. HM
6. Ta<sub>2</sub>O<sub>5</sub>
7. Al
8. PO etch stop dep
9. PO etch stop dep
10. PO etch
11. Al cap dep
12. Al cap pattern
13. Al cap etch

## Main Processing Issues:

- A. HD Cap stack etch
- B. Edge leakage
- C. Al Cap coverage
- D. Stack step height

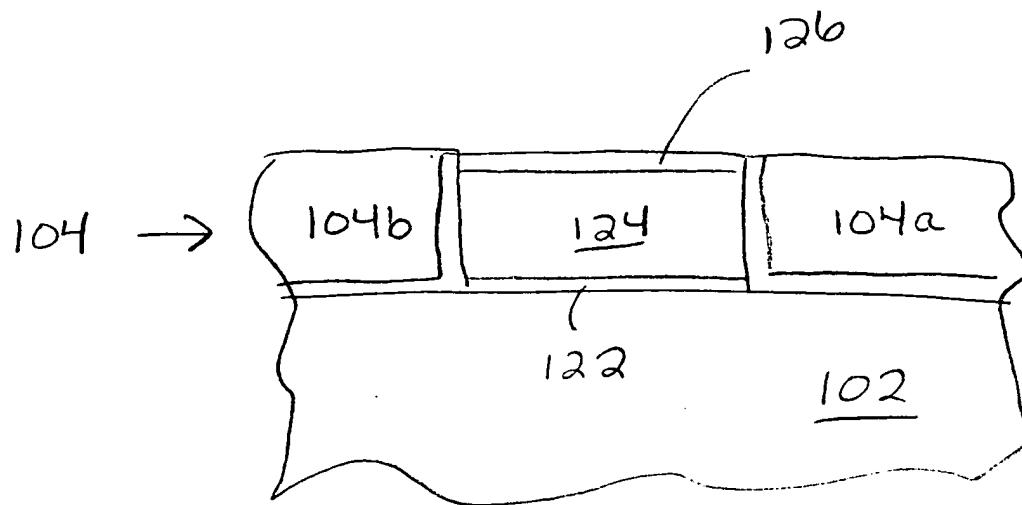


FIG. 2A

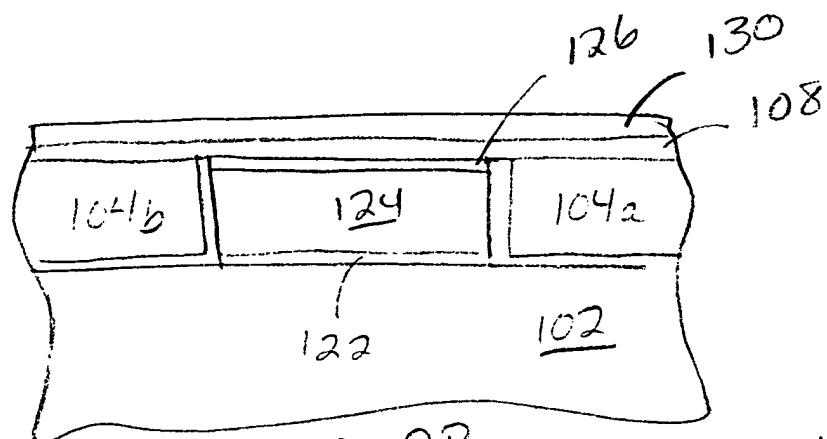


FIG. 2B

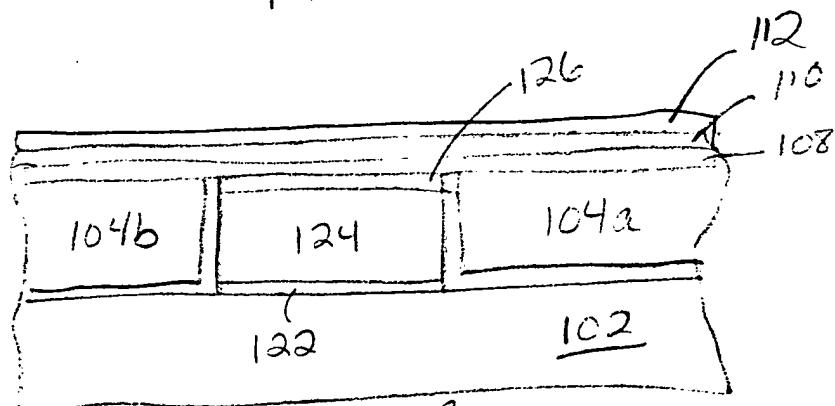


FIG. 2C

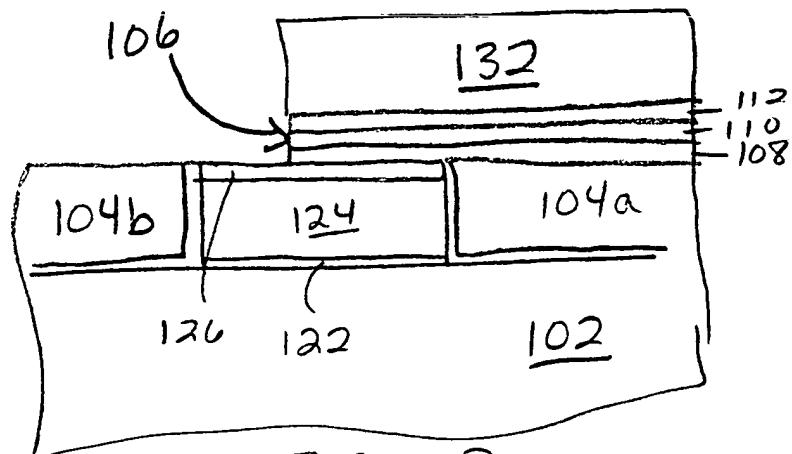


FIG. 2D

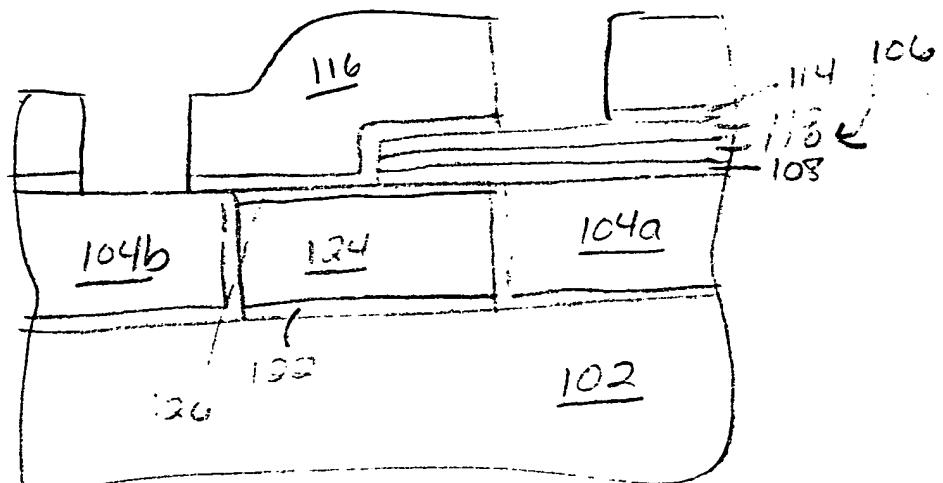


FIG. 2E

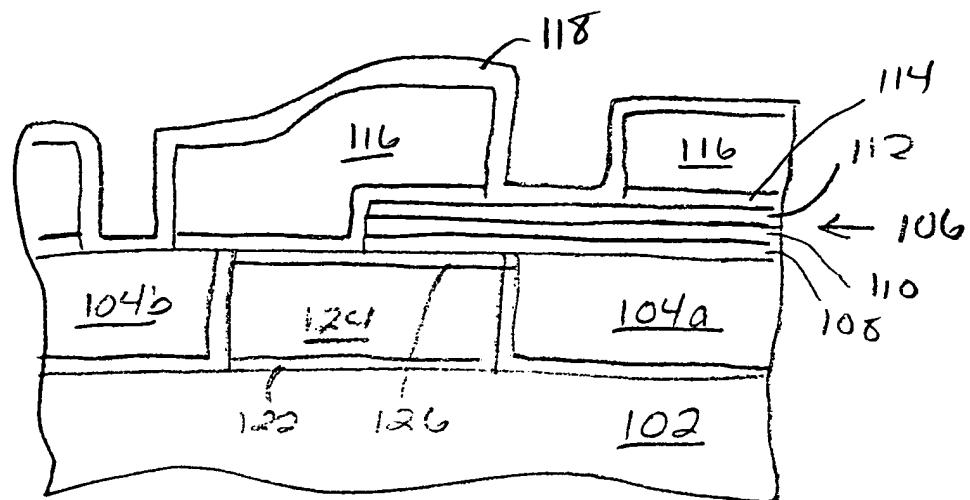


FIG. 2F

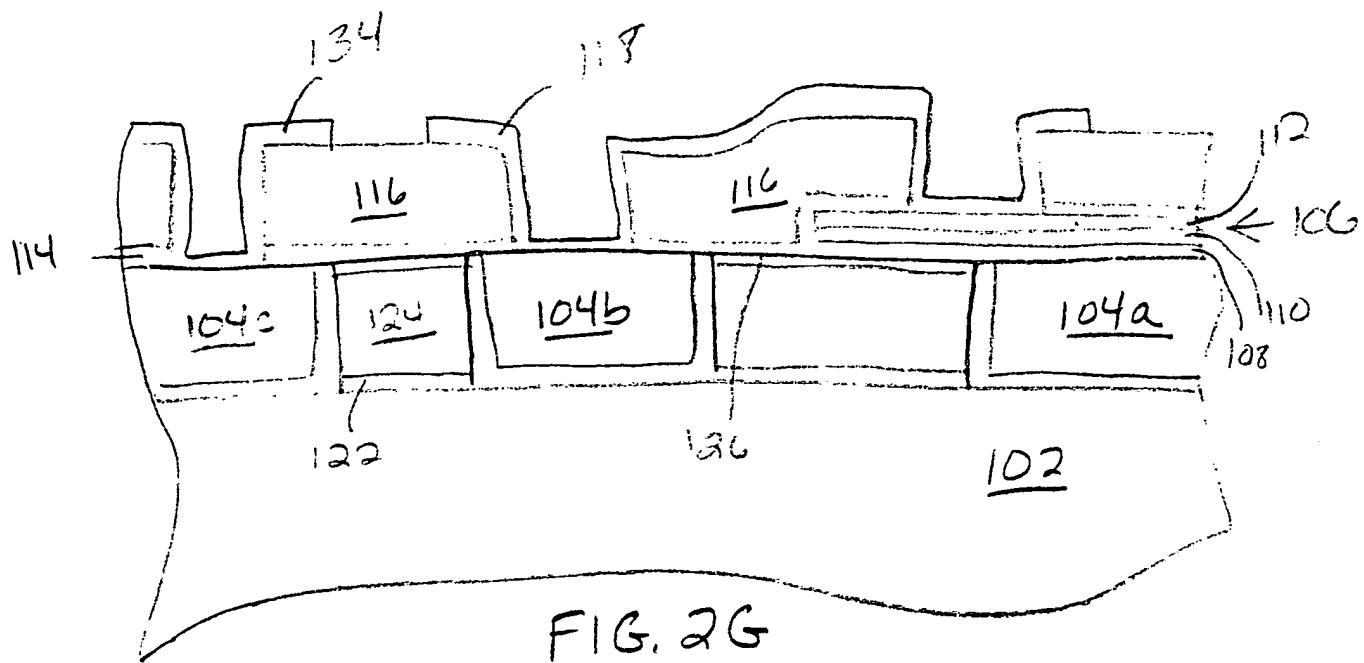


FIG. 2G